Biological Sample Ambient Preservation (BioSAP) Device, Phase I



Completed Technology Project (2012 - 2012)

Project Introduction

To address NASA's need for alternative methods for ambient preservation of human biological samples collected during extended spaceflight and planetary operations, Chromologic (CL) proposes to develop a novel Biological Sample Ambient Preservation (BioSAP) device. BioSAP device is based on an improved dried biological specimens storage approach and specialized matrix to (1) collect a known amount of biological samples, (2) rapidly capture and stabilize them, (3) protect them from biodegradation, (4) decrease drying time, and (5) increase recovery. The unique technology and expertise of CL scientists will result in an innovative, reliable, compact and low-cost method of collecting and preserving dried biological specimens at room temperature. The unique portable design of the BioSAP does not require any power source and it is utilizable during flight and mission. In Phase I, CL will demonstrate the feasibility of the BioSAP device by fabricating a prototype device capable of capturing and stabilizing a subset of target analytes through a rapid drying process. In Phase II, CL plans to validate, refine and optimize the design of the BioSAP to allow for future integration with post-mission analysis methodologies.

Primary U.S. Work Locations and Key Partners





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Small Business Innovation Research/Small Business Tech Transfer

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Organizations Performing Work	Role	Туре	Location
ChromoLogic, LLC	Lead Organization	Industry Minority- Owned Business	Monrovia, California
• Ames Research Center(ARC)	Supporting Organization	NASA Center	Moffett Field, California

Primary U.S. Work Locations

California

Project Transitions

February 2012: Project Start

Augu

August 2012: Closed out

Closeout Documentation:

• Final Summary Chart(https://techport.nasa.gov/file/138018)

Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Organization:

ChromoLogic, LLC

Responsible Program:

Small Business Innovation Research/Small Business Tech Transfer

Project Management

Program Director:

Jason L Kessler

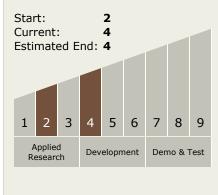
Program Manager:

Carlos Torrez

Principal Investigator:

Herman Lelie

Technology Maturity (TRL)





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Technology Areas

Primary:

- TX06 Human Health, Life Support, and Habitation Systems
 - ☐ TX06.3 Human Health and Performance
 - □ TX06.3.1 Medical Diagnosis and Prognosis

Target Destinations

The Sun, Earth, The Moon, Mars, Others Inside the Solar System, Outside the Solar System

